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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/265,946	03/11/1999	NABIL HUSSEINI	032391-002	5100

21839 7590 06/28/2002

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EXAMINER

SEMUNEGUS, LULIT

ART UNIT	PAPER NUMBER
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<sup>3641</sup>  
*Re*  
DATE MAILED: 06/28/2002 *SR*

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/265,946  
09/832,020

Applicant(s)

HUSSEINI ET AL.

Examiner

Lulit Semunegus

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-115 is/are pending in the application.
- 4a) Of the above claim(s) 37 and 59-113 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 53-58 is/are allowed.
- 6) ☒ Claim(s) 1-36, 38-52, 114 and 115 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/11/1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

**Attachment(s)**

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-36 and 114-115 have been considered but are moot in view of the new ground(s) of rejection.
2. The new grounds of rejection considers applicant arguments:
  - In regards to claims 1 and 114 where applicant asserts that Ballreich et al does not disclose a cartridge casing body being molded around at least a portion of the projectile. Vatsvog (5,259,288) teaches a cartridge casing body (112) is molded for sufficient strength around at least a portion of a projectile (110) and where the casing body follows the cannellure contours of the projectile (fig. 12, col. 8, lines 25-29).
  - In regards to claim 21, applicant's argues that Boutwell does not teach a projectile. The new ground of rejection discloses that Vatsvog teaches a projectile (12,110).
  - In regards to claim 38, applicant argues that Boutwell does not disclose that the walls reduce in thickness toward an axial center of the closed front end. Applicant's attention is directed to fig. 2 and 3 where the casing reduces in thickness toward an axial center of the closed front end (col.2, lines 64-66).
  - Applicant also argues that Boutwell does not teach claim 39 since Boutwell does not disclose stress concentrated in any particular area. Boutwell teaches that the end wall (6) simply spreads apart when the cartridge is fired (col.2, lines 4-6) which infers that the area around the end wall (6) has stress concentration.

***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show reference number 333 as described in the specification on page 23 line 19. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 20 and 114-115 are rejected under 35 U.S.C. 102(b) as being anticipated by Vatsvog (5,259,288). Vatsvog discloses an ammunition article, comprising: a cartridge casing body (10, 112), which includes a first interior portion, defined by the portion of the projectile (12, 110) a second interior portion (16) having a smaller diameter than the first interior portion (fig.2-3) and separated by a shoulder (20); the cartridge casing body (10, 112) molded for sufficient strength around at least a portion of a projectile (12, 110); where the casing body follows the cannellure contours of the projectile (fig. 12, col. 8, lines 25-29); and where the portion of the wall has a substantially constant thickness (152).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vatsvog (5,259,288).

As to claims 3-5, Ballreich et al disclose all the limitations of claims 3-5 as applied to the claims 1, 20 and 114-115 above, except the projectile is attached to the cartridge casing body by heat bond, by adhesive bond or by flange method. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to attach the projectile to the cartridge casing body by heat bond, adhesive bond or by flange instead of molding as described above in Ballreich (col. 3, lines 33-36) since these methods of attachments are well known in the art.

8. Claims 6-19, 21-36 and 38-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vatsvog (5,259,288) in view of Boutwell (3,144,827).

As to claims 21, 23-25, 27-28, 30, 38-42, 44-46 and 48, Vatsvog teaches all the limitations of claims 21, 23-25, 27-28, 30, 38-42, 44-46 and 48 as applied to the claims 1-2, 20 and 114-115 above, except the base being a molded plastic which is replaceable and mechanically attached, Boutwell teaches an ammunition article comprising: a molded plastic cartridge case body (2, col. 2, line 17) having a closed front-end (6) that reduce in thickness and includes a stress concentrator for tearing of the closed front end (col. 1 line 70 to col. 2, line 6); a second end with a base (1) attached where the base is a molded plastic

base (col. 2, lines 18-20) which can be replaceable and is attached mechanically by a locking mechanism (3,5); a primer (9); and a propellant charge inside the cartridge casing body (col. 1, lines 68-69). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a replaceable mechanically attached molded plastic base for easy access to the propellant and interchangeable base.

As to claims 6-8 and 10-18, Vatsvog teaches all the limitations of claims 6-8 and 10-18 as applied to the claims 1, 20 and 114-115 above, except a molded plastic base attached to the second end of the cartridge casing body and is attached to the cartridge casing body by various methods of attachment.

Boutwell teaches a base (1) which is attached to the casing body by locking mechanism and includes a propellant charge and primer (9). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a plastic base and attach this base with casing body using locking groove (3,5) as taught by Boutwell as well as screw threads, ultrasonic weld, interference fit, adhesive and heat bond since these methods of attachments are well known in the art and create a reusable and replaceable base.

As to claims 29, 31-34, 47 and 49-52, Vatsvog and Boutwell disclose all the limitations of claims 29, 31-34, 47 and 49-52 as applied to the claims 21, 23-25, 28, 30, 37-42, 45-46 and 48 above, except the base is attached to the cartridge casing body by various methods of attachment. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to

attach a base and casing body using locking groove (3,5) as taught by Boutwell as well as screw threads, ultrasonic weld, interference fit, adhesive and heat bond since these methods of attachments are well known in the art.

As to claims 9 and 19, Vatsvog and Boutwell teach the claimed invention as described above in claims 6-19, 21-36 and 38-52 except for electronic ignition and where the casing body is formed of a combustible material. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use electronic ignition instead of a primer for igniting the propellant for greater accuracy and consistent ignition and use combustible molded material for better sealing around the projectile.

As to claims 22, 26, 35-36 and 43, Vatsvog and Boutwell teach the claimed invention as described above in claims 21, 23-25, 27-28, 30, 37-42, 44-46 and 48 except for electronic ignition and where the casing body is metal or formed of a combustible molded material. At the time of the invention, it would have been obvious to a person of ordinary skill in the art use electronic ignition instead of a primer for igniting the propellant for greater accuracy and consistent ignition and use metal as a casing to withstand the high pressures of powder detonation for moderate amount of reusability and use combustible molded material for better sealing around the projectile.

***Allowable Subject Matter***

9. Claims 53-58 are allowed

Art Unit: 3641

**Conclusion**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lulit Semunegus whose telephone number is (703) 306-5960. The examiner can normally be reached on Mon-Friday.

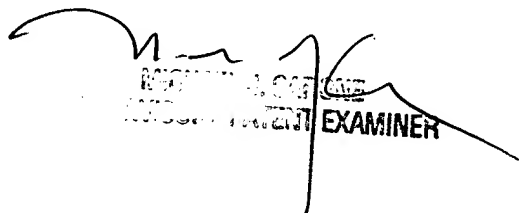
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (703) 306-4198. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

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October 31, 2001

Lulit Semunegus  
Examiner  
Art Unit 3641

  
LULIT SEMUNEGUS  
EXAMINER